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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,669	03/11/2004	David J. Wendell	47171-00426USP1	6277
41230 7590 01/07/2009 CUMMINS-ALLISON CORP. C/O NIXON PEABODY LLP 161 N. CLARK ST., 48TH FLOOR CHICAGO, IL 60601				
EXAMINER MCCULLOUGH, MICHAEL C				
ART UNIT 3653		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/798,669

**Applicant(s)**

WENDELL ET AL.

**Examiner**

MICHAEL C. MCCULLOUGH

**Art Unit**

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The amendment filed 14 October 2008 has been entered.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 2, 5, 8-14, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossfield et al. (US 5,684,597) in view of Rasmussen et al. (5,277,651). Hossfield et al. discloses a coin processing system comprising a coin path (18), a rotatable disc (22), a memory storing master denominating characteristic information (see column 6 lines 51-57) for a plurality of particular coin sizes, a stationary sorting head (24a,b) forming a coin path, an exit region (64), a light source (48a-d), a light detector (50a-d) that is a photo detector, a controller (54) adapted to compare signals and compare information with the stored master denominating characteristic information (see column 6 lines 48-56) and determine when there is a favorable determination (see column 6 lines 56-58), generating a first signal event corresponding to the interruption of the light beam (see column 4 lines 38-40), generating a second signal event corresponding to when light is incident (see column 4 lines 55-57). Hossfield et al. does not disclose an encoder that produces an encoder pulse for each incremental movement of the rotatable disc and a diverter with positions to plural exit paths. However, Rasmussen et al. discloses a similar device that includes an encoder (see column 12 lines 16-24) and a diverter with positions to plural exit paths (see column 9 lines 11-25) for the purpose of precisely monitoring the angular movement of

the rotatable disc (see column 6 lines 16-24) and diverting coins to appropriate paths (see column 9 lines 16-25). It would have been obvious for a person of ordinary skill in the art at the time of the applicant's invention to modify Hossfield et al. by utilizing an encoder, a diverter, and exit paths, as disclosed by Rasmussen et al., for the purpose of precisely monitoring the angular movement of the rotatable disc and diverting coins to appropriate paths.

2. Claims 3, 4, 6, 7, 15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossfield et al. (US 5,684,597) in view of Rasmussen et al. (5,277,651) as applied to claims 1, 2, 5, 8-14, 16-20, and 22-27 above, and further in view of Panzeri et al. (US 6,142,285). Hossfield et al. in view of Rasmussen et al. discloses all of the limitations of the claims but does not disclose a laser diode and at least one light guide along the coin path. However, Panzeri et al. discloses a similar device that includes a laser diode (11) and at least one light guide (12) along the coin path for the purpose of producing a laser beam (see column 6 line 56) and increasing the size of the laser beam to impinge upon larger portions of a coin (see column 6 lines 60-63). It would have been obvious for a person of ordinary skill in the art at the time of the applicant's invention to modify Hossfield et al. in view of Rasmussen et al. by utilizing a laser diode and at least one light guide, as disclosed by Panzeri et al., for the purpose of producing a laser beam and increasing the size of the laser beam to impinge upon larger portions of a coin.

3. Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossfield et al. (US 5,684,597) in view of Rasmussen et al. (5,277,651). Hossfield et al.

discloses a coin processing system comprising a coin path (18), a rotatable disc (22), a memory storing master denominating characteristic information (see column 6 lines 51-57) for a plurality of particular coin sizes, a stationary sorting head (24a,b) forming a coin path, an exit region (64), a light source (48a-d), a light detector (50a-d) that is a photo detector, a controller (54) adapted to compare signals and compare information with the stored master denominating characteristic information (see column 6 lines 48-56) and determine when there is a favorable determination (see column 6 lines 56-58), generating a first signal event corresponding to the interruption of the light beam (see column 4 lines 38-40), generating a second signal event corresponding to when light is incident (see column 4 lines 55-57). Hossfield et al. does not disclose moving a plurality of coins along the coin path, an encoder that produces an encoder pulse for each incremental movement of the rotatable disc and a diverter with positions to plural exit paths. However, Rasmussen et al. discloses a similar device that includes moving a plurality of coins along a coin path (see Abstract), an encoder (see column 12 lines 16-24) and a diverter with positions to plural exit paths (see column 9 lines 11-25) for the purposes of sorting coins (see Abstract), precisely monitoring the angular movement of the rotatable disc (see column 6 lines 16-24) and diverting coins to appropriate paths (see column 9 lines 16-25). It would have been obvious for a person of ordinary skill in the art at the time of the applicant's invention to modify Hossfield et al. by utilizing moving a plurality of coins along a coin path, an encoder, a diverter, and exit paths, as disclosed by Rasmussen et al., for the purposes of sorting coins, precisely monitoring the angular movement of the rotatable disc and diverting coins to appropriate paths.

***Response to Arguments***

Applicant's arguments filed 14 October 2008 have been fully considered but they are not persuasive.

4. Applicant argues the Hossfield teaches away from using an encoder because Hossfield relies on a motor that produces a fixed uniform rate of rotation. In response, Hossfield does not teach away from using an encoder. Hossfield teaches accurately controlling the motor and it would have been obvious to modify Hossfield by using an encoder to provide precise monitoring.
5. Applicant has amended the claims to include the limitation "a rate of rotation is adjustable" and argues that the prior art does not disclose this feature. In response, applicant has not claimed that the rate of rotation is adjusted. See MPE 2106.
6. Applicant argues the controller of Rasmussen. In response, the controller of Hossfield is relied upon in combination with the teaching of Rasmussen, farther see MPEP 2106.
7. Applicant has amended the claims to include the limitation "a continuously rotatable disk" and argues the prior art does not disclose this feature. In response, the applicant has not recited that the disk is continuously rotating, see MPEP 2106.
8. Applicant argues that the light beam of Hossfield is emitted orthogonal to the coin path and not substantially in the same plane. In response, the light beam is emitted such that it traverses the coin path in substantially the same plane as the coin path. The plane of the coin path can be considered the plane that contains the light emitters

and detectors and therefore the light emitted traverses the path in the same plane as the coin path.

9. Applicant argues that Hossfield teaches away from a diverter and multiple exit paths because Hossfield is directed to a vending machine, pay phone, etc. In response, Hossfield does not teach away from a diverter or plural exit paths. Hossfield teaches a machine for identifying coins and it would be obvious to a person of ordinary skill in the art to modify Hossfield by utilizing a diverter and plural exit paths for the purpose of sorting coins, see Paragraph 1 of the previous office action.

10. Applicant's arguments with respect to claims 22-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. MCCULLOUGH whose telephone number is (571)272-7805. The examiner can normally be reached on Monday-Friday, 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/  
Supervisory Patent Examiner, Art  
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MCM